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Perspective Taking, Cultural Stress, and the Individual: From the Inside Out

by Debbie Patton

ARL-TR-6923 **May 2014**

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ARL-TR-6923 **May 2014**

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REPORT DOCUMENTATION PAGE	Form Approved OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED (From - To)
May 2014	Final	January 2012–December 2013

4. TITLE AND SUBTITLE
Perspective Taking, Cultural Stress, and the Individual: From the Inside Out

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)
Debbie Patton

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Army Research Laboratory
ATTN: RDRL-HRS-E
Aberdeen Proving Ground, MD 21005-5425

8. PERFORMING ORGANIZATION REPORT NUMBER
ARL-TR-6923

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT
In general, Western cultures focus on the world around the individual, and Eastern cultures focus on the group in which one belongs. In understanding how the American military interacts in foreign cultures, Soldier cultural perspectives, or what the individual Soldier "brings to the table," must be understood to mitigate the potential effects of culture stress. The ability to maintain unit readiness and mission effectiveness in the midst of increasing peacekeeping missions ultimately depends on the performance of the Soldier. Personal, situational, and organizational factors within dynamic, changing, and stressful environments can affect a Soldier's overall performance. The U.S. Army Research Laboratory will investigate how Soldier individual differences, cultural stress, and perspective taking affect decision making through the Relevant Information for Social-Cultural Depiction. This report will show that inclusion of individual difference variables is essential to social-cultural model development, which will support predictions of decision-making performance in a multicultural environment.

15. SUBJECT TERMS
culture, stress, individual differences, military

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Debbie Patton
Unclassified	Unclassified	Unclassified	UU	22	19b. TELEPHONE NUMBER (*Include area code*) 410-278-5890

Contents

List of Tables

1. Introduction

U.S. engagement in the wars in Iraq and Afghanistan has taught us that we must contend with the power of culture—specifically, individualistic versus collectivistic types. The attitudes and beliefs held by individuals within the individualistic and collectivistic cultures are distinct. A large difference between these cultural styles is that individualists focus more on the self and their immediate family, whereas collectivists focus more on the group or groups to which they belong.

The area of cultural understanding is not new but is now a main topic of interest to the U.S. Army. General Petraeus (U.S. Army, Ret.) realized that to win wars we must win the hearts and minds of the people in the countries we are occupying (Murphy, 2007). Therefore, the Army provided counterinsurgency training to help U.S. Soldiers interact with the local populace. For example, the U.S. Army Research Laboratory (ARL) has worked with other Department of Defense (DoD) agencies and academia to provide cultural training tools in bilateral negotiations with the people of Iraq. To continue this effort on cultural understanding, ARL is planning to investigate a Soldier's contributions to multicultural interactions by studying individual differences, cultural stress, and perspective taking. This report is a first step in examining these topics. The knowledge gained will provide information to support model development with the goal of predicting performance while operating in a multicultural environment.

I conducted a literature search using the following terms: "individual differences," "personality," "culture," "cultural stress," "stress," "perspective taking," and "military." Each topic by itself yielded many results on the individual topics; however, very little research covers the topics together or as they apply to the military. The search revealed that most of the research was conducted with college students or about community health issues (Mohan, 2007). Azari et al. (2010) state that when considering the military and the missions performed by the armed services within a cultural context, the research is lacking.

The effects of individual differences and stress on tactical performance in the military have been studied for some time (Blewett et al., 1994; Cosenzo et al., 2007; Dixon et al., 2006; Fatkin and Hudgens, 1990; 1994; Fatkin and Patton, 2008; Hudgens et al., 1991; Hudgens et al., 1992), but little to no research has been conducted to understand the effects of a Soldier's traits, stress responses, cognitive flexibility, and perspective as a whole on performance, such as decision making within another culture. Given current deployments to Iraq and Afghanistan, the U.S. Army is taking cultural training very seriously. The Army teaches cultural awareness training at several military schoolhouses. A basic understanding of the culture is followed by more specific cultural training. The U.S. Army's cultural training centers and schoolhouses provide classic textbook teacher-aided instruction, along with pocket guides, predeployment Web sites, simulations, games, reading lists, and "real" (role-playing) interactions training held at joint readiness training sites. The Army's current cultural training focuses on teaching a Soldier what

culture is, generally speaking, and then about specific cultures such as the local practices and traditions, what to do and what not to do while in the country, information about the expectations and roles of women, typical food and drink, how to detect subtle cues of culture, etc. This culture-specific training is available on the Army's Web site, Army Knowledge Online (www.ako.com), and smart cards (little cards, booklets, and even mobile apps that contain quick references for a specific topic, such as culture). The training includes a basic understanding of the specific culture, important historical markers, and key phrases. The basic culture training program introduces individual cultural aspects from the student's background but does not teach how they as individuals contribute to their own and others' cultures. Although the training provided seems fruitful, needed, and certainly worthwhile, there seems to be a gap in understanding how the individual Soldier's natural abilities play into cultural understanding.

Although cultural understanding research is extensive, it focuses on information about a particular culture and usually focuses on comparable groups in the United States (e.g., business owners, college students, industry workers). Past and current research does little to consider how characteristics (trait efficacy, personality, training, etc.) of an individual influence his or her ability to adapt to a new culture, especially within the military. Culture shock is the disorientation a person experiences upon entering a new and unfamiliar country. Azari et al. (2010) identified a gap in this research area for the military community that they call "cultural stress." Cultural stress takes into account the unique pressures that face the military in all aspects of deployment, in peace or in war. Azari et al. (2010) discuss cultural stress as the "stress faced by military men and women deployed on operations away from their home countries." These stressors range from everyday tasks, such as buying food for meals or finding a bathroom, to more complex issues, such as interacting with noncombatants in a hostile environment. The latter case is certainly more complicated, as Soldiers need to alter their mindset from opposition to empathy. In a defensive mindset, being able to understand the situation from the other's perspective may provide insight on how to best handle the situation at hand.

This report first reviews relevant literature on individual differences, cultural stress, and perspective taking, then identifies research gaps in these areas. Last, it proposes ways to investigate the effects of individual characteristics on cultural stress to support model development that will provide predictions of decision-making performance in a multicultural environment. Because of the multifaceted nature of this topic, similar content and research discussions are in multiple sections of the report.

2. Stress

2.1 Background

Lazarus and Folkman (1984, p. 141) define stress as "the relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being." Bernard and Krupat (1994) developed the Biopsychosocial Model of Stress that includes three components: the external, the internal, and their interaction. The discussion of these components, for purposes of this report, is at the highest, most general level.

The external component of the Biopsychosocial Model of Stress engages environmental events that precede the detection of stress and are capable of inducing a stress response. Common external stressors fall within four general categories: personal, social/familial, work, and the environment.

The internal component of stress involves both neurological and physiological reactions to stress. Selye (1936) defined the General Adaptation Syndrome (GAS) as the process by which people react to stress and includes the interaction of three phases: alarm reaction, stage of resistance, and exhaustion. This GAS, a reaction to stress, is thought to be a set of reactions that mobilize the person's resources, both psychological and physical, to handle an impending threat.

Stressors also differ in their duration. Acute stressors last for a relatively short duration and are generally not a health risk because they are limited by time. Chronic stressors are comparatively longer in duration and possibly pose serious health risks because of their prolonged activation of the body's stress response. Extended stressful situations can create high levels of hormones during this stage of resistance, and these levels may upset one's equilibrium and impair internal organs, leaving them vulnerable to disease. Exhaustion is the result of a person in repeated and prolonged stress experiences.

The third component of the Biopsychosocial Model of Stress, with regard to the individual's cognitive processes, is the interaction between the external and internal components; this is consistent with Lazarus and Folkman's (1984) definition of stress. This interaction considers the ongoing relationship (i.e., interaction) between the individual and the environment emphasizing the meaning that an event has for the individual. The individual's appraisal of an event plays a fundamental role and influences the extent of the stress response and which coping strategies the individual may employ in efforts to handle the stress.

2.2 Combat Stress

According to Army Field Manual (FM) 4-02-51 (2006), many stressors in combat are caused by deliberate enemy actions intended to kill, injure, or demoralize our Soldiers and allies, whereas other stressors are a result of the natural environment, e.g., extreme temperatures. It is possible that some stressors are a result of a leader's, or in some cases, one's own premeditated or miscalculated decisions. Strong leadership is necessary to limit and keep operational stressors manageable and to ensure troops are mentally and physically prepared to endure these stressors. This leadership is critical to combat operations because extreme and chronic stress can affect "decision-making and judgment, resulting in missed opportunities, or worse, in high casualties and/or failure to complete the mission." (2006, p. 1-1). Further, FM 4-02-51 (2006) states, "[S]ome of the most potent stressors are interpersonal (potentially trait driven) in nature and can be due to conflict in the unit or in the home front" (p. 1-1). Often a Soldier's extreme reaction to these stressors leads to harmful acts to self (e.g., suicide) or others (e.g., impulsive weapon firing toward another). Thus, these stressors must be acknowledged and mitigated.

The Army's Combat and Operational Stress Control (COSC) program, as outlined in FM 4-02-51 (2006), identifies four principal stressors Soldiers encounter during combat and other operations: (1) environmental, (2) cognitive, (3) physiological, and (4) emotional (pp. 1–4). Combat operational stress reactions are described by Azari et al. (2010) as stress behaviors that can be mitigated by understanding the interaction between individual traits, unit traits, and environmental factors specific to the context of the mission. These interactions can identify those service members at risk to COSRs and enable intervention and prevention.

2.3 Stresses and Soldier Performance

For more than 20 years, ARL and its predecessor, the Human Engineering Laboratory, has studied the effects of stress on Soldier performance (Blewett et al., 1994; Cosenzo et al., 2007; Dixon et al., 2006; Fatkin and Hudgens, 1990; 1994; Fatkin et al., 1991; Hudgens et al., 1991; 1992; Patton, 2001). Fatkin et al. (1991) extended Lazarus' definition of stress to include that stress is "a multifaceted, dynamic, and interactive process with psychological and physiological dimensions." I use this extension of the definition because it encompasses the whole of the situation, which causes the stress. Early investigations attempted to determine the best paradigm to assess a Soldier's stress under various stressful conditions (e.g., continuous operations, nuclear/biological/chemical suits, Special Forces selection course). The purpose of studying stress is to find ways to mitigate the effects of stress. Fatkin and Patton (2008) report that human variations in personality, perceptions, experience, and expectations are the main factors to define stress within a given individual. Supporting the idea that individuals experience or perceive stress differently, the authors define the stress experience as "the interaction between individual appraisals and situational factors that contribute to the adaptation necessary for effective Soldier performance."

2.4 Stress and Culture

Cultural distance has six dimensions in which cultural values can be analyzed and compared to one another: individual-collectivism, uncertainty-avoidance, masculinity-femininity, power-distance, long-term orientation, and indulgence–self restraint (Hofstede et al., 2010). In discussing cultural distance and stress responses, Redmond (2000) posits that cultural distance affects "what skills play a role in both the amount and the handling of stress" and that uncertainty avoidance is the strongest skill and that "adaptation and communication effectiveness contributed to the prediction of handling stress" within an unfamiliar culture (p. 157).

Chun et al. (2002) point out that years of stress research have left out the issue of culture. The authors contend that culture is a "fundamental context" that contributes to influencing the individual and the environment (p. 29). Azari et al.'s (2010) definition of stress also includes cultural factors. Within a military context, stress can be best defined as "the adverse reaction people have to excessive pressure or other types of demand placed on them" (p. 586). Cultural contacts made during deployments also have the potential to be naturally stressful, even in a very different context. The skill sets necessary to not only survive but to thrive while conducting full-spectrum operations in a foreign environment require a high degree of cognitive flexibility. A Soldier's mindset must be agile enough to perform kinetic operations and then quickly change in order to conduct peacekeeping duties.

In recent years the term "culture stress" replaced "culture shock" in the research literature. Culture stress comprises both combat operational stress and culture shock. Keats (2010) states that there are certain skills one must have to be successful in mitigating culture stress. He states that these skills are self-efficacy, emotional flexibility, cultural intelligence, cognitive flexibility, and an ability to develop broad behavioral repositories based on the cultural specifics of a host nation. The next section discusses empirical research in support of these skills.

3. Individual Differences

3.1 Traits and States

Costa and McCrae (1992) state that some of the Big Five (conscientiousness, agreeableness, neuroticism, openness, and extraversion) personality traits correlate with performance in military scenarios and in training. Matsumoto (2006) found that three of these traits (openness, neuroticism, and conscientiousness) mitigated arousal between the United States and Japan. Matsumoto further states that these differences account for how arousal (i.e., emotion or stress) interacts with some personality traits. Along with the Big Five, coping strategies (problem-focused, seeking social support, wishful thinking, blaming self, and avoidance) and affect (anxiety, depression, hostility, positive affect, sensation-seeking negative affect) show correlations with performance. Zuckerman et al. (1993) developed an alternative five-factor

model and made this version available to ARL. ARL has conducted research studies investigating this relationship (Cosenzo et al., 2007; Dixon et al., 2006; Fatkin and Patton, 2008; Patton et al., in progress). This research shows that individual differences in personality, trait affect, and cognitive flexibility are related to performance in a variety of military situations (Cosenzo et al., 2007; Fatkin and Patton, 2008; Patton et al., unpublished report). As a result of these investigations, Fatkin and Patton (2008) created a Stress Assessment Paradigm that consists of several validated and reliable self-report questionnaires. Table 1 lists five questionnaires from this paradigm and the method for measuring them (adapted from Fatkin and Patton, 2008). Furthermore, their research shows that individual differences in motivation, confidence, coping, personality, trait affect, and cognitive flexibility correlate with performance in various military and training situations (Fatkin and Patton, 2008).

Table 1. Five select components from the Readiness Assessment and Monitoring System.

Measure	Function
Zuckerman-Kuhlman Personality Questionnaire (Zuckerman et al., 1993)	Measures the Big Five components of personality: activity-energy, aggression-hostility, sociability, neuroticism-anxiety, and impulsive-sensation seeking.
Multiple Affect Adjective Checklist – Revised (Lubin and Zuckerman, 1999)	Measures an individual's general stress personality. Five response components: anxiety, depression, hostility, dysphoria, positive affect, and sensation seeking.
Revised Ways of Coping Checklist (Vitaliano et al., 1987)	Identifies five individual coping efforts: problem-focused thoughts or behaviors, seeking social support, wishful thinking, blaming self, and avoidance.
Uncertainty Measures (Bar-Tal, 1992; Greco and Roger, 2001)	Measure of an individual's decision making strategies and coping styles used in situations with high degrees of uncertainty.
Situational Self-Efficacy (Bandura, 1977)	Measure of one's perceived confidence to master new situations or adapt to changing circumstances.

More specifically, a study conducted on psychological factors on attrition in an advanced individual training program at a military installation showed students reported high levels of motivation to complete their vehicle maintenance training (Fatkin and Patton, 2008). The study showed that using effective coping strategies—specifically, problem focusing and seeking social support—leads to reports of lower levels of stress during their training. However, this might not be the case when faced with training for peacekeeping missions across military occupational specialties (MOSs). Most MOSs are for performing in kinetic or war-like missions, not for peacekeeping missions. Confidence in performance varies by individual: those with high confidence report lower levels of anxiety, feelings of depression, and overall dysphoria. High confidence also correlates with reports of high positive affect. Confidence measures collected before exams show that high confidence in performance on the exam correlates with higher grades received. In another study (Fatkin et al., 1991), self-reports of low levels of the trait personality measures, negative dysphoria, and neuroticism were predictive of high performance in a marksmanship competition. Conversely, Soldiers who reported high levels of negative affect and neuroticism performed poorer in the marksmanship competition.

3.2 Cognitive Flexibility and Culture

Miller (2010) theorizes that cognitive flexibility can positively influence results and improve knowledge preservation in culturally relevant ways. Cognitive flexibility requires the ability to think and respond quickly to changing situations; therefore, we can postulate that people who have more of this ability can more easily and quickly apply what they have learned from past experiences to novel and distinct situations. We can measure cognitive flexibility and use it to predict performance in various situations. According to Spiro et al. (2003), cognitive flexibility theory (CFT) is a process of intertwining knowledge in one domain while taking alternative approaches to the vast set of problems. Additionally, applications of CFT postulate that to reproduce the benefits of groups when a given individual is alone and must think independently, he or she must become better prepared for collaborative learning and participation in the group.

Because of similarities, a discussion of cognitive flexibility should include cognitive complexity (CC), which can be defined as the ability to interpret others, objects, and thoughts in a multidimensional way (Suedfeld et al., 1992) to include interpersonal and affective reasoning and is related to various outcomes. Benet-Martinez (2006) reports that one's values, beliefs, practices, images, and artifacts associated with a specific culture characterize CC at the individual level regarding cultural representations and shared meanings.

Individuals also vary in culture by being mono- or multicultural. Cultural frame switching (CFS) is a process by which multicultural persons can access and apply two different cultural meaning systems in response to cultural cues (Benet-Martinez, 2006). Research supports the notion that repeated contact in a specific domain leads to more complex domain-relevant schemas and that multicultural persons have more complex cultural schemas due to their repeated exposure to multiple cultures. Their CFS creates schemas that are more integrated, multidimensional, abstract, and organized than monoculturals. Benet-Martinez (2006) stated that cultural information is very self-relevant, similar to other types of self-knowledge (e.g., personality traits), and that this knowledge is easily retrievable from memory. It is believed that self-knowledge is central to bicultural persons because they have taken substantial efforts to understand and adapt to the new host culture in which they reside. Also, self-knowledge affords them the ability to put themselves into the other's mindset.

3.3 Perspective Taking

Perspective taking is an ability to perceive someone else's feelings and motivations and to empathize with them. To predict another's actions you must be able to evaluate their state and consider their perspective. Wu and Keysar (2007) state that perspective taking is fundamental to social interaction. Spiro et al. (2003) describe the process by which people learn and adapt. One will begin from a familiar domain (e.g., self-relevance), apply it to unfamiliar domains, then return to the familiar beginning but come to it from different perspectives. This is the process by which people learn and thus become readily adaptable in novel situations.

Understanding how someone else feels is crucial to any healthy relationship. While perspective taking is more actionable, the faculty to understand and act in response to unique affective experiences of another person defines the psychological construct "empathy." Lamm et al. (2007) report that regardless of the definition, empathy has these three components: (1) an emotional response to another person, (2) a cognitive faculty to take the perspective of another person, and (3) some monitoring facility to keep track of the origins (self versus other) of the experienced feelings. In social work, this third component marks a conscious decision to take empathic action (Gerdes and Segal, 2009). Lamm et al. (2007) reported on a brain activity study where participants were instructed to imagine the feelings of a patient whose medical treatment was either successful or not. The participants' neural activity during the perspective-taking scenario was similar to those actually experiencing a similar situation. The neural activity during the observation of successful treatment supports the notion that cognitive and motivational processes can mitigate one's responses to the pain of others. These processes are important for instigating the helping behavior because observing another's situation will result in empathic concern. Interestingly, Wu and Keysar (2007) found that because Americans tend to be more independent and view the world from their perspective, they were unable to play a game that required the ability to play from the opponent's perspective. In comparison, in the same study, Wu and Keysar (2007) showed that the Chinese, being interdependent and viewing the world as part of a group, were able to communicate better because they could play the game according to the opponent's perspective.

Perspective taking can be integral to training. One of the U.S. Army's peace support missions was to provide training to a host nation police force. According to Miller (2010), when training police from other cultures, it is important to teach from several perspectives; providing a variety of perspectives during training allows the trainee to see the inadequacies of a single typical response and allows for rethinking or changing cognitive processes to fuse appropriate techniques and tactics. This change in cognitive processes may increase confidence in decisions, give way to greater adaptability and cognitive flexibility, and lead to a higher level of cognition. Although there is no current research in this area, providing perspective training and developing cognitive flexibility might prove beneficial.

The literature suggests that one's ability to provide different perspectives in decision making relates to one's risk-taking attitude. For example, Schultz (1997) states: "Prospect theory posits that the decision maker's reference point determines the domain in which he makes a decision. If the domain is one of losses, the decision maker will tend to be risk seeking, if gains, then he will be risk averse" (p. 5). He tested that if this theory is true, then by knowing your own domain (self-relevant), you can make a better-informed decision. In addition, if the decision maker can do the same for subordinates or for enemies, it should be possible to predict their behavior in the decision—in other words, whether or not the decision is a risky one or one that is overcautious. Regardless, the decision maker may be limited in time and available information that can also influence the decision.

4. Summary

This report reviewed relevant theoretical and empirical research on individual differences, stress, and perspective taking as they relate to decision making and culture. Individual differences are critical to cultural research. In addition, understanding individual difference characteristics, such as personality, experiences, perspectives, propensity to risk, and cognitive flexibility, shapes a person's perception if the situation is important. Stress perception and individual differences interact and ultimately contribute to decision-making ability.

5. Future Directions

As part of ARL's social cultural modeling effort, understanding the interactions of the effects of individual traits, perspective taking (e.g., cognitive flexibility, coping, and confidence), and cultural stress on predicting success in a variety of multicultural decision-making environments, such as peacekeeping, is needed. Because peacekeeping missions are performed across all echelons and MOSs within the military, and they require many different people with different backgrounds to come to a common end state, it is important to investigate (1) how individual traits and motivation affect peacekeeping missions within nontraditional MOSs, (2) how life stress affects a person's well-being during a decision-making process, and (3) whether one's CFS trait changes over time for monocultured individuals. Using existing decision-making tools within a cultural context like the ELECT BiLAT simulation (Hill et al., 2009; Kim and Hart, 2006), a computer-based negotiation-training tool, would allow the effects listed above to be tested on a peacekeeping mission by military personnel in nontraditional peacekeeping MOSs. Another tool with possibilities is the Gator 6 (WILL Interactive, 2005) full-spectrum training tool. Both of these tools will provide a controllable and repeatable paradigm to test for the effects of the individual on performance and decision making in a culturally sensitive decision-making environment. These results will feed further experimentation to provide empirical data to support a social and cultural model being developed by the ARL Human Research and Engineering Directorate's Relevant Information for Social-Cultural Depiction program and to predict performance in a real-world multicultural decision-making task.

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